

H. Spillways and Intakes



SI-1

SIGN:

Danger Water Tunnel
Intake No Swimming or
Diving Within 50 Feet

COMMENT:

Identifies risk, cause,
prohibited activities and
area of effect. Sign
placement is good for
intended audience.
Log boom in back-
ground serves as boat
barrier.

RECOMMENDATION:

None.



SI-2

SIGN:

Danger Water Intake
Stay Away

COMMENT:

Sign repeated in every
direction of approach.
Lighting increases
effectiveness.

RECOMMENDATION:

None.



SI-3

SIGN:

Very Dangerous
Entering this Siphon
Would Result in Certain
Death

COMMENT:

Use of sign as
secondary exclusion
device adds
effectiveness (fence is
primary). Good
combination of trigger
phrase and specialized
text to convey
message.

RECOMMENDATION:

None.



SI-4

SIGN:

Danger Keep Away

COMMENT:

Very appropriate
placement, use of
Danger trigger word,
color format, and
supporting text.

RECOMMENDATION:

None.



SI-5

SIGN:

Danger Keep Away

COMMENT:

Appropriate placement, use of Danger trigger word, color, format, and supporting text. Font size increases effectiveness.

RECOMMENDATION:

None.



SI-6

SIGN:

Dam, Thin Ice

COMMENT:

Use of Universal Water Safety Standards for warnings. Diamond shape and warning orange add to effectiveness. Placement at dam crest and intake increases effectiveness.

RECOMMENDATION:

None.



SI-7

SIGN:

Danger Dam Spillway
Ahead No Boating
Fishing Swimming
Beyond this Point

COMMENT:

Positioned to be seen
from bank and in water.
Use of trigger words
and prohibited activities
increases
effectiveness.

RECOMMENDATION:

Maintenance should
take place regularly in
areas where plant
growth may obscure
sign from view.



SI-8

SIGN:

Caution The Spillway
May Become Active at
Any Time Hiking or
Camping Below the Dam
is Not Recommended at
Reservoir Levels Near
the Spillway Crest

COMMENT:

Sign position at access
point, identification of
danger, and prohibited
activities add to
effectiveness.

RECOMMENDATION:

May wish to increase
Caution font size to
differentiate it from the
body text.



SI-9

SIGN:

Danger Spillway Spillway
May Release Large
Quantity of Water From
Dam at Any Time Without
Warning Stay Clear Be
Sure You Can Reach
Shore Safely

COMMENT:

Font size emphasizes
danger and avoidance
advice. Subtext
identifies source of
hazard.

RECOMMENDATION:

Use of italics decreases
"glance" readability.
Use only in areas where
viewer will be on foot or
stopped in vehicle.



SI-10

SIGN:

Danger Spillway
Remain Outside of Log
Boom

COMMENT:

Placement on the wall
by the spillway targets
people coming in from
land who may have
missed or avoided the
log boom. A good
second safety
measure. Note
additional sign at far
end of spillway.

RECOMMENDATION:

None.



SI-11

SIGN:

Danger Automatic Gate Releases

COMMENT:

Good font size, trigger word, and color combinations. Identifies possible dangers for folks downstream.

RECOMMENDATION:

Possible area for siren and strobe light safety measures.



SI-12

SIGN:

Danger Dam Spillway

COMMENT:

Good placement and font size for intended viewers.

RECOMMENDATION:

None.



SI-13

SIGN:

Danger Keep Out of Area Automatic Pump May Start at Any Time

COMMENT:

Sign placement good, and hazard identification increases effectiveness. Sign and border size may be too small. Sign height is designed to accommodate changing water levels.

RECOMMENDATION:

Replace sign with larger font and increase the white border.



SI-14

SIGN:

Danger Flashing Strobe Indicates Open Gates, Dam, Take Out

COMMENT:

Use of USWMS symbols increases effectiveness. Separate signage for each warning also increases effectiveness.

RECOMMENDATION:

None.



SIGN:

Danger Hazardous Waters are Present Today Stay Away From Buoy Strong Currents and Potential Suction

COMMENT:

Very specific danger message combined with standardized Danger trigger word can alert reader to hidden dangers.

RECOMMENDATION:

None.

SI-15



SIGN:

Danger No Boats Spillway

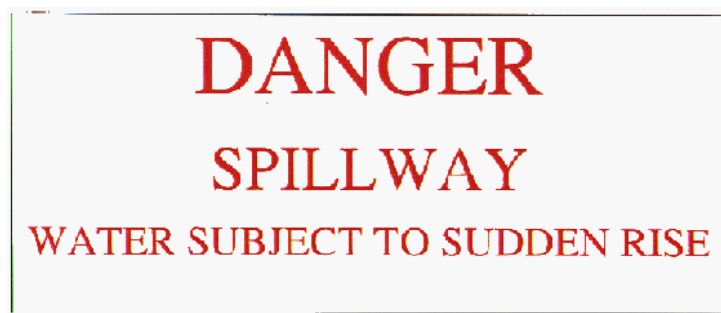
COMMENT:

Use of USWMS increases recognition of warning by boaters and may increase effectiveness.

RECOMMENDATION:

None
The USWMS is being merged with the U.S. Aids To Navigation System - see <http://www.boatsafe.com/nauticalknowhow/uswms.htm> for details. This symbol will not be affected. Text is fine for initial layout, but final sign should have proportional borders.

SI-16

**SIGN:**

Danger Spillway Water
Subject to Sudden Rise

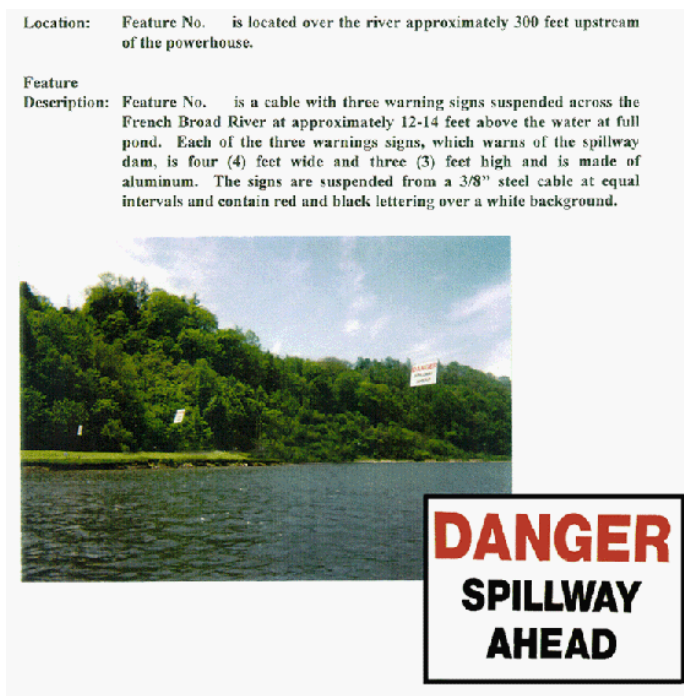
COMMENT:

Good use of trigger
word, identification of
hazard, and explanation
of dangerous
conditions.

RECOMMENDATION:

Text is fine for initial
layout, but final sign
should have
proportional borders.

SI-17



SI-18

SIGN:

Danger Spillway Ahead

COMMENT:

Example of safety plan
sign design/placement
sheet. Sheets list the
feature #, # of signs,
year installed, location,
and design details.
Notes indicate sign and
font sizing.

RECOMMENDATION:

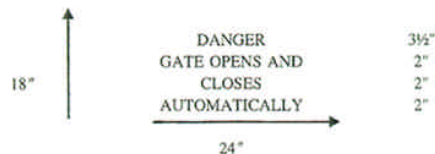
Cable suspension may
cause a hazard in sail
boating areas.
Periodically assess the
site for changing
recreation use which
may affect signage
needs.

Location: Feature No. is located on the chain link fencing on the right abutment.

Feature Description: Feature No. is a warning sign, twenty-four (24) inches wide by eighteen (18) inches high and made of aluminum. The sign is attached to the chain link fencing and is elevated approximately five (5) feet above the ground. The signage is composed of red and black lettering over a white background.



Notes:



SI-19

SIGN:

Danger Gate Opens
and Closes
Automatically

COMMENT:

Clear message using trigger words. Example of safety plan sign design/placement sheet. Sheets list the feature #, # of signs, year installed, location, and design details. Notes indicate sign and font sizing.

RECOMMENDATION:

None.



SI-20

SIGN:

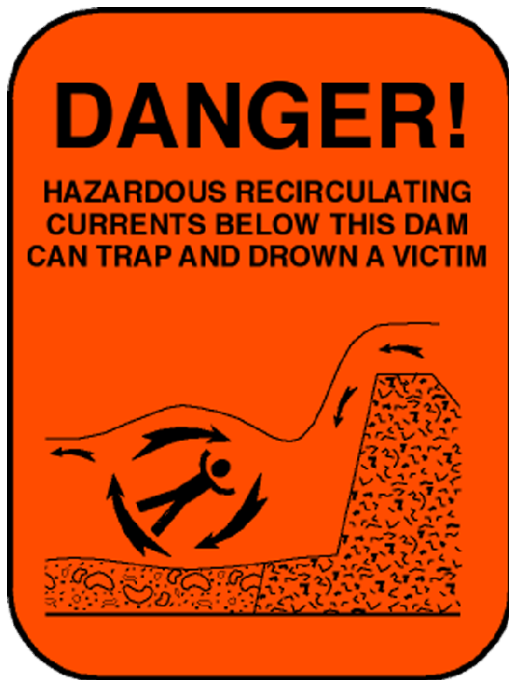
Danger No Boats or
Float Tubes In This
Area Remote
Operation of Gates
May Occur At Any Time

COMMENT:

Good adaptation of signage to reflect new recreation trend. Use of trigger word increases effectiveness.

RECOMMENDATION:

None.



SI-21

SIGN:

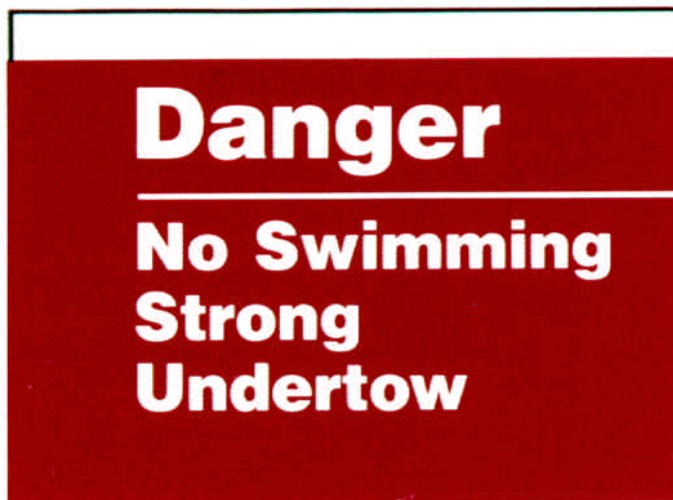
Danger Hazardous
Recirculating Currents Below
This Dam Can Trap And Drown
a Victim

COMMENT:

This sign was developed by the Minnesota Department of Natural Resources (MN DNR) for low head dams. It identifies non-obvious currents that may occur. The sign has been used commonly in Minnesota and other states, increasing public recognition through standardization of the warning. Well designed specialty graphic increases effectiveness. (Used with permission: Copyright, 2001 Minnesota Department of Natural Resources. Contact MN DNR Boating Safety Section (651) 296-3336 for permission to use.)

RECOMMENDATION:

None.



SI-22

SIGN:

Danger No Swimming
Strong Undertow

COMMENT:

Subsurface currents are not obvious to viewers and should be identified. Uses USACE spacing, font, coloration, and capitalization in design.

RECOMMENDATION:

None.